

Wednesday, 9/26/2007 7:56:07 AM
User: Kim Johnston

Process Sheet

SPV

Customer : CU-DAR001 Dart Helicopters Services

Drawing Name : SADDLE BILLET

Job Number : 34875

Estimate Number : 10035

P.O. Number :

This Issue : 9/26/2007 S.O. No. :

Prsht Rev. : NC

First Issue : / /

Previous Run : 31389

Type : MACHINED PARTS

Part Number : D6101007

Drawing Number : D6101 REV A

Project Number : N/A

Drawing Revision : A

Material :

Due Date : 10/26/2007 Qty: 300 Um: Each

Written By : Kim JohnstonChecked & Approved By : Kim Johnston

Comment : Est. A: 01.05.04 New Issue EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PG PURCHASING



Comment: PURCHASING

Issue P/O: 4685

C 26/09/26

a) Description: Aluminum billet

b) 7.750" x 8.250" x 2.50" thick

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Grain direction along 7.750" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

(300)

2.0 D6101007P 7075-T7351 8.25X7.75X2.5



Comment: Qty.: 1.0000 Each(s)/Unit Total: 300.0000 Each(s)
7075-T7351 8.25X7.75X2.5

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

DIMENSIONAL CHECK

4.0 QC6



Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6101

S 08/05/09 (100)

100

100

Date: Wednesday, 9/26/2007 7:56:08 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET

Job Number: 34875

Part Number: D6101007

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CNC

88 08/25/14

6.0

QC21

FINAL INSPECTION/W/O RELEASE



08/05/15

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



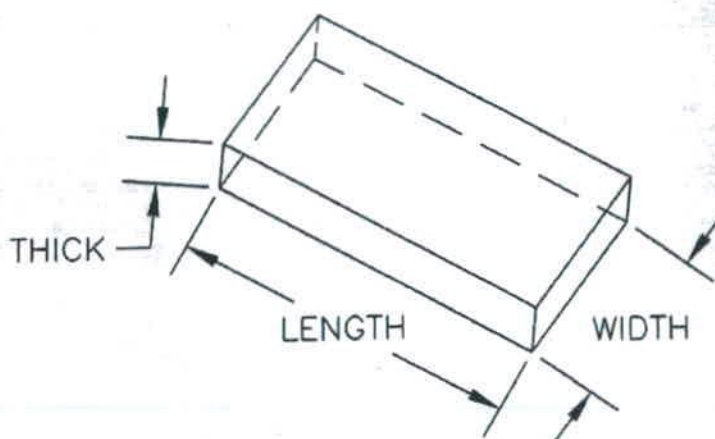
W 08-05-15



DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED S	DRAWING NO. D6101	Rev. A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.23



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34875

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

Copyright © 2001 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



SHIP TO:

A M CASTLE & CO
3050 SOUTH HYDRAULIC
WICHITA, KS 67216

SOLD TO:

AM CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4119118

1AC 6879

CUSTOMER PO NUMBER: 23-13568		WORK PACKAGE:		CUSTOMER PART NUMBER: 6879 A97075-60		SHIP RUN/LOAD ID: 101194/2		GOVT CONTRACT NUMBER:	
KAISER ORDER NO: 1060498	LINE ITEM: 1	SHIP DATE: 18-JAN-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE			
WEIGHT SHIPPED: 5436 LB	QUANTITY: 3 PCS EST.	B/L NUMBER: 2016119		GAUGE: 2.5000 IN		WIDTH: 48.500 IN		LENGTH: 144.500 IN	

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev06
BSS 7055/RevA
DPS 4.713/RevAH
GSS16100/RevG

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 410016A0 Cast 146

Drop 58

Ingot 4

(ASTM E8/B557)

Tensile: Temper
T7351

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
70.3 : 72.0
(485 : 496)

Yield KSI (MPA)
59.3 : 61.5
(409 : 424)

Elongation %
10.5 : 11.0

(ASTM E1004)

Conductivity %IACS :
(MS/M) :

41.6 Min
24.1 Min

41.7 Max
24.2 Max

(ASTM E1251)

Chemistry:
Actual

SI
0.09

FE
0.18

CU
1.5

MN
0.01

MG
2.4

CR
0.20

ZN
5.6

TI
0.02

V
0.01

ZR
0.01

TOT

OTHER
0.04

CASTLE METALS-WIC

DATE REC'D

1-21-08

REC'D FROM

3800

APPROVED BY

9

**KAISER
ALUMINUM**Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586**CERTIFIED TEST REPORT**Serial Number
4119118

Lot: 429154A8 Cast 146

Drop 51

Ingot 1

(ASTM E8/B557)

Tensile: Temper
T7351Dir / # Tests
LT / 2 (Min:Max)Ultimate KSI (MPA)
71.7 : 71.8
(494 : 495)Yield KSI (MPA)
60.0 : 60.0
(414 : 414)Elongation %
11.7 : 12.0(ASTM E1004)
Conductivity %IACS :
(MS/M) :42.3 Min
24.5 Min42.5 Max
24.7 Max

(ASTM E1251)

Chemistry:
ActualSI
0.07FE
0.16CU
1.4MN
0.01MG
2.5CR
0.23ZN
5.8TI
0.02V
0.01ZR
0.01

TOT

OTHER
0.03**ALLOY LIMITS**Chemistry:
7075 MIN
MAXSI
0.00
0.40FE
0.00
0.50CU
1.2
2.0MN
0.00
0.30MG
2.1
2.9CR
0.18
0.28ZN
5.1
6.1TI
0.00
0.20V
0.00
0.05ZR
0.00
0.05EACH
TOTMAX
0.05
0.15

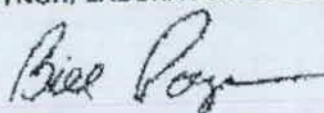
Aluminum Remainder

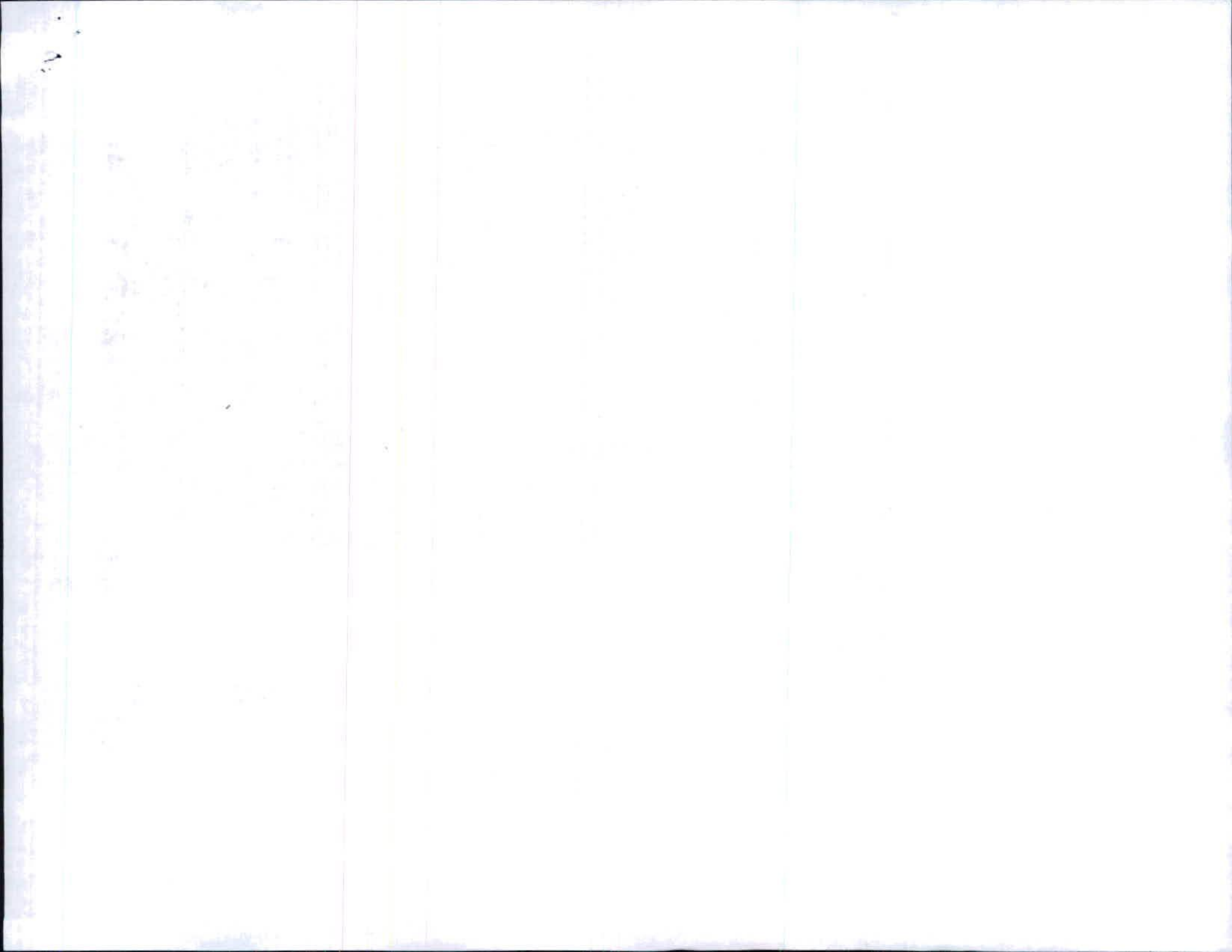
TEST NOTES

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND
MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS
INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD
GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL,
WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS
OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. 150-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR




SHIP TO: A M CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131	
SOLD TO: AM CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131	
CUSTOMER PO NUMBER: 01-35537	WORK PACKAGE:
CUSTOMER PART NUMBER: 6879 A97075-60	SHIP RUN/LOAD ID: 101082/15
GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1054858	LINE ITEM: 1
SHIP DATE: 24-SEP-2007	ALLOY: 7075
CLAD: BARE	TEMPER: T7351
PRODUCT DESCRIPTION: MILL FINISH PLATE	
WEIGHT SHIPPED: 7180 LB	QUANTITY: 4 PCS EST.
B/L NUMBER: 2014551	GAUGE: 2.5000 IN
WIDTH: 48.500 IN	LENGTH: 144.500 IN

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4109155

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev08
BSS 7055/RevA
DPS 4.713/RevN/AmdAF
GSS16100/RevG

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 412801A3 Cast 992

Drop 82

Ingot 2

(ASTM E8/B557)

Tensile: Temper
T7351

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
69.3 : 69.5
(478 : 479)

Yield KSI (MPA)
57.4 : 58.1
(396 : 401)

Elongation %
11.0 : 11.5

(ASTM E1004)
Conductivity %IACS :
(MS/M) :

41.9 Min
24.3 Min

42.0 Max
24.4 Max

(ASTM E1251)

Chemistry:
Actual

SI
0.11

FE
0.21

CU
1.5

MN
0.02

MG
2.4

CR
0.19

ZN
5.7

TI
0.03

V
0.01

ZR
0.01

TOT

OTHER
0.04

ALLOY LIMITS

Chemistry:
7075 MIN
MAX

SI
0.00
0.40

FE
0.00
0.50

CU
1.2
2.0

MN
0.00
0.30

MG
2.1
2.9

CR
0.18
0.28

ZN
5.1
6.1

TI
0.00
0.20

V
0.00
0.05

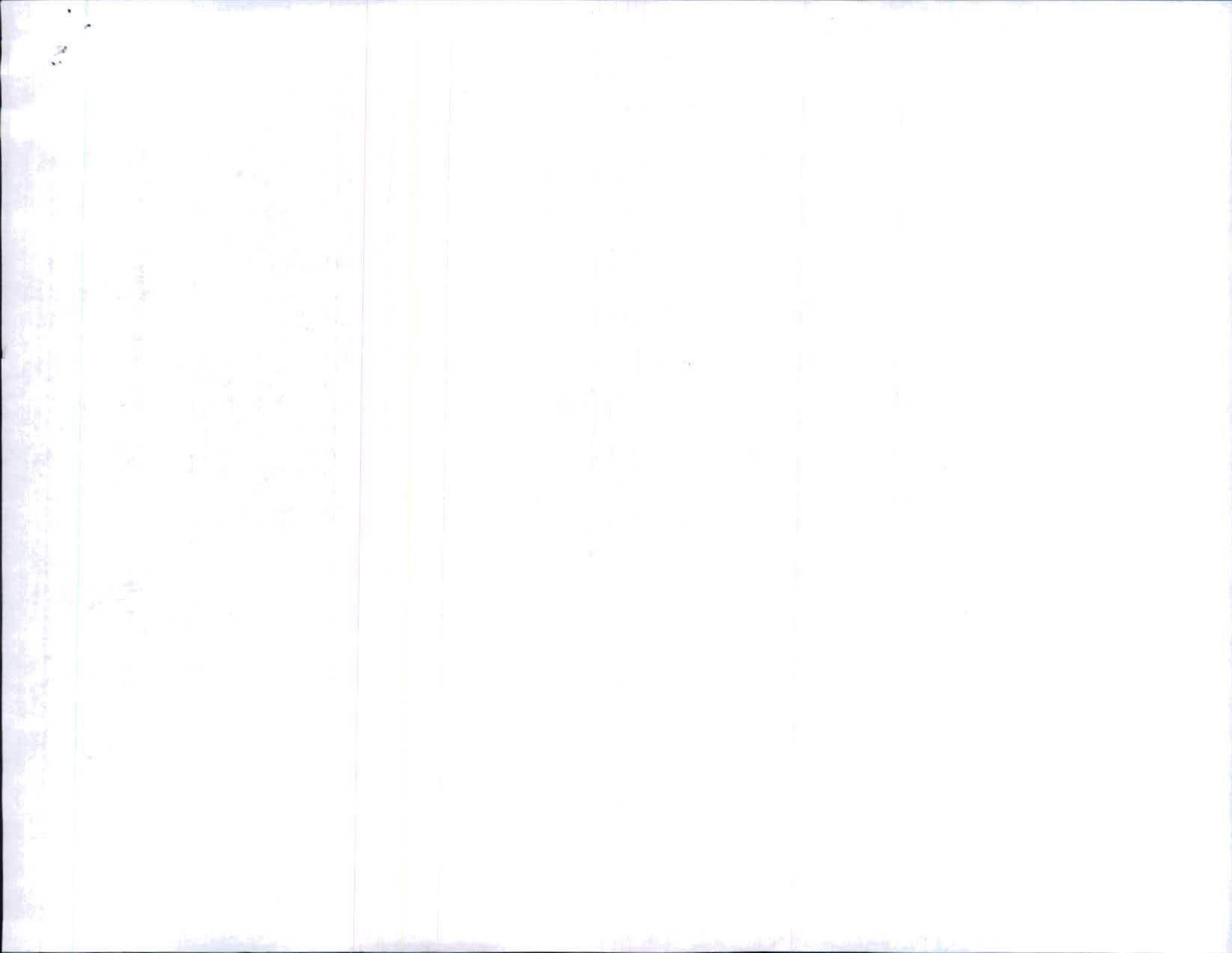
ZR
0.00
0.05

OTHER
EACH
TOT

MAX
0.05
0.15

Aluminum Remainder

CASTLE METALS CORP.
DATE RCVD 9/28/07
IAC 6879
APPROVED BY



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4109155

TEST NOTES

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM & CHEMICAL CORPORATION (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM & CHEMICAL CORPORATION LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR



